PMBOK® 7e Update for *CPM 4e* Chapter 10 Budgeting Projects

PMBOK® 7e Domains Impacting Chapter 10

Planning
Measurement
Uncertainty

Content for Chapter 10

Planning

Budgeting may be performed mostly upfront on predictive projects or in an iterative or incremental approach on adaptive projects. Planning includes creating estimates for work effort and costs associated with people and physical resources. Early estimates may change based upon circumstances and better information. Estimates may vary by range, accuracy, precision, and confidence, with all improving as the project progresses and better information is available.

Estimates that go into budgets can be presented as deterministic (single point) or probabilistic (ranges). Agreed-upon estimates are aggregated into a cost budget which will become the baseline for a predictive project. The budget should include contingency reserves to respond to risk events as they happen and management reserves that may be controlled by the sponsor to cover unforeseen events. Budgets also need to include funds for crashing or fast-tracking a project if needed.

Part of budgeting includes determining metrics, baselines, and thresholds so the project team can capture information and show stakeholders that the project is proceeding according to budget or make needed adjustments if it is not.

Measurement

Timely and accurate information enables the project team and stakeholders to make good decisions. Measurements are valuable not so much for their own sake, but for the conversations and decisions they enable. Leading indicators can predict changes or trends and may help to keep the project from exceeding its budget. Lagging indicators reflect past performance.

Effective metrics can deal with quality, schedule, or resources, but each may impact the project cost. Effective metrics should be SMART – specific, meaningful, achievable, relevant, and timely. Business value metrics can include cost-benefit ratio, planned benefits compared to actual benefits, return no investment (ROI), and net present value (NPV). These should be used at project selection and chartering but should continue to be

considered when budgeting the project. Metrics should have thresholds beyond which corrective action is taken.

Uncertainty

Project teams should consider economic factors such as volatility in prices, availability of resources, ability to borrow funds, and inflation/deflation as they construct their budget. Some approaches to dealing with uncertainty are to prepare for multiple outcomes or build in resilience to potential sudden changes, and these may require extra funds in the budget. Teams may use experiments or prototypes to deal with ambiguity and funds, for these also need to be included in the project budget. Some approaches to dealing with risk such as transferring it to another party through insurance or other means and implementing mitigation efforts in advance of a possible risk event cost money and need to be considered in the project budget.